

**DRAFT ENVIRONMENTAL ASSESSMENT
PROPOSED DESIGNATION OF CRITICAL HABITAT
FOR GRAHAM'S BEARDTONGUE AND WHITE RIVER BEARDTONGUE
IN UTAH AND COLORADO**

**Prepared by
U.S. Fish and Wildlife Service
Utah Ecological Services Field Office
West Valley City, Utah**

April 15, 2014

Table of Contents

Introduction.....	4
1.0 Purpose for the Proposed Action	4
2.0 Need for the Action.....	4
2.1 Background – Graham’s beardtongue	5
2.1.1 Taxonomy and Species Description	5
2.1.2 Distribution.....	5
2.1.3 Habitat	6
2.1.4 Biology and Ecology	6
2.1.5 Threats	7
2.2 Background – White River beardtongue.....	8
2.2.1 Taxonomy and Species Description	8
2.2.2 Distribution.....	8
2.2.3 Habitat	9
2.2.4 Biology and Ecology	9
2.2.5 Threats	10
2.3 Endangered Species Act	11
2.3.1 Critical Habitat	11
2.3.2 Section 7 Consultation	12
2.3.3 Technical Assistance	14
2.3.4 Section 9 Prohibitions	14
2.3.5 Section 10 Permits.....	15
3.0 Description of Alternatives	15
3.1 Alternatives Considered But Not Fully Evaluated.....	15
3.2 Alternative A. No Action Alternative	16
3.3 Alternative B. Designation of Critical Habitat (Proposed Action)	16
3.4 Summary of Actions by Alternative	19
4.0 Description of the Affected Environment.....	20
4.1 Physical Environment	21
4.2 Fish, Wildlife, and Plants.....	21
Clay reed-mustard.....	23
Barneby ridge-cress	23
Dudley Bluffs twinpod	23
Dudley Bluffs bladderpod	24
Ute ladies'-tresses	24
4.3 Human Environment.....	25
4.4 Tribal Lands	25
5.0 Environmental Consequences	25
5.1 Physical Environment	26
5.2 Fish, Wildlife, and Plants.....	27
5.3 Human Environment.....	29

5.3.1	Traditional Oil and Gas Development	30
5.3.2	Oil Shale and Tar Sands Development	31
5.3.3	Grazing	32
5.3.4	Archeological and Cultural Resources	32
5.3.5	Environmental Justice	33
5.3.6	Cumulative Impacts.....	33
6.0	Council on Environmental Quality Analysis of Significance.....	35
6.1	Context.....	35
6.2	Intensity.....	35
7.0	Contacts and Coordination with Others	37
7.1	List of Agencies, Organizations, and Persons to Whom Copies of This Draft EA Were Sent or Contacted.....	37
8.0	List of Contributors.....	38
9.0	Literature Cited	38
10.0	Maps	38
10.1	Map of Alternative B: Proposed Action - Graham's beardtongue.....	39
10.2	Map of Alternative B: Proposed Action - White River beardtongue.....	40
10.3	Map of Alternative A: No Action – Graham's beardtongue.....	41
10.4	Map of Alternative A: No Action – White River beardtongue.....	42

List of Tables

Table 1.	Proposed Critical Habitat for Graham's beardtongue.....	20
Table 2.	Proposed Critical Habitat for White River beardtongue.....	20
Table 3.	Candidate, threatened, and endangered species in Duchesne and Uintah Counties, Utah and Rio Blanco County, Colorado.	22
Table 4.	Summary of Environmental Consequences by Alternative	35

List of Figures

Figure 1.	Proposed critical habitat for Graham's beardtongue (<i>Penstemon grahamii</i>).....	39
Figure 2.	Proposed critical habitat for White River beardtongue.....	40
Figure 3.	Graham's beardtongue areas without a proposed critical habitat designation.....	41
Figure 4.	White River beardtongue areas without a proposed critical habitat designation.....	42

Introduction

The U.S. Fish and Wildlife Service (Service) is proposing to designate critical habitat for Graham's beardtongue (*Penstemon grahamii*) and White River beardtongue (*Penstemon scariosus* var. *albifluvis*) in Utah and Colorado, as required by section 4 of the Endangered Species Act of 1973, as amended (ESA). We proposed to list Graham's beardtongue and White River beardtongue as threatened and to designate critical habitat for both species on August 6, 2013 (78 FR 47832). We proposed approximately 27,502 hectares (ha) (67,959 acres (ac)) for designation as critical habitat in our proposed rule in Duchesne and Uintah Counties in Utah and Rio Blanco County in Colorado for Graham's beardtongue. We proposed approximately 6,036 hectares (ha) (14,940 acres (ac)) for designation as critical habitat in our proposed rule in Duchesne and Uintah Counties in Utah and Rio Blanco County in Colorado for White River beardtongue.

Critical habitat designation is required by the ESA for listed species. This Draft EA presents the purpose of and need for the critical habitat designation, the proposed action and alternatives, and an evaluation of the direct, indirect, and cumulative effects of the alternatives pursuant to the requirements of the National Environmental Policy Act of 1969 (NEPA) as implemented by the Council on Environmental regulations (40 CFR 1500, et seq.) and according to the U.S. Department of Interior NEPA procedures. We will use this Draft EA to decide whether critical habitat will be designated as proposed, if the proposed action requires refinement, or if further analysis is needed through preparation of an Environmental Impact Statement (EIS).

1.0 Purpose for the Proposed Action

The purpose of the proposed action is to designate critical habitat for Graham's and White River beardtongues in Utah and Colorado by utilizing provisions of the ESA. The purpose of the ESA is to conserve the ecosystem upon which threatened and endangered species depend. Critical habitat designation identifies areas that contain the physical and biological features essential to the conservation of this species and that may require special management or protection. The designation of critical habitat also describes the physical and biological features essential to the conservation of the species which are identified as the Primary Constituent Elements (PCEs).

2.0 Need for the Action

The need for this action is to comply with section 4 of the ESA, which requires that critical habitat be designated for endangered and threatened species unless such designation is not prudent. We proposed Graham's and White River beardtongues as threatened throughout their range and proposed designated critical habitat on August 6, 2013 (78 FR 47590 and 78 FR 47832).

When the range of a species includes States within the Tenth Circuit, pursuant to the Tenth Circuit ruling in Catron County Board of Commissioners v. U.S. Fish and Wildlife Service, 75 F.3d 1429 (10th Cir. 1996), we will complete an analysis pursuant to NEPA on critical

habitat designations. The range of this species is within the States of Utah and Colorado, which are within the Tenth Circuit.

Critical habitat is one of several provisions of the ESA that aid in protecting the habitat of a listed species until populations have recovered and threats have been minimized so that the species can be removed from the list of threatened and endangered species. Critical habitat designation is intended to assist in achieving long-term protection and recovery of the two beardtongue species and the ecosystem upon which they depend. Section 7(a)(2) of the ESA (50 CFR §402.13) requires consultation for Federal actions that may affect critical habitat to avoid destruction or adverse modification of this habitat. Further explanation of critical habitat and its implementation is provided below.

Below we describe the threats and the life history and habitat parameters for Graham's and White River beardtongues. For additional analysis of the threats to these species please see our proposed listing rule (78 FR 47590). For further explanation of how we used life history and habitat characteristics to determine the essential physical and biological features for the Graham's and White River beardtongues, please see our proposed critical habitat designation (78 FR 47832).

2.1 Background – Graham's beardtongue

2.1.1 Taxonomy and Species Description

Graham's beardtongue was described as a species in 1937 as an herbaceous perennial plant in the plantain family (Plantaginaceae). For most of the year when the plant is dormant, it exists as a small, unremarkable basal rosette of leaves. During flowering the plant becomes a "gorgeous, large-flowered penstemon" (Welsh *et al.* 2003, p. 625). Similar to other species in the beardtongue (*Penstemon*) genus, Graham's beardtongue has a strongly bilabiate (two-lipped) flower with a prominent infertile staminode (sterile male flower part)—the "beardtongue" that typifies the genus. The combination of its large, vivid pink flower and densely bearded staminode with short, stiff, golden-orange hairs makes Graham's beardtongue quite distinctive. Each year an individual plant can produce one to a few flowering stems that can grow up to 18 centimeters (cm) (7.0 inches (in)) tall (with some exceptions), with one to 20 or more flowers on each flowering stem.

2.1.2 Distribution

The range of Graham's beardtongue is a horseshoe-shaped band about 80 miles long and 6 miles wide extending from the extreme southeastern edge of Duchesne County in Utah to the northwestern edge of Rio Blanco County in Colorado. While we have identified larger numbers of plants and a greater distribution of the species across its range since 2006, the range is essentially the same as it was in 2006. We now have a more complete picture of how many total Graham's beardtongue individuals exist, and we assume that the current known range of this species has not changed substantially from what it was historically.

2.1.3 Habitat

Graham's beardtongue is an endemic plant found mostly in exposed oil shale strata of the Parachute Creek Member and other unclassified members of the Green River geologic formation. Most populations are associated with the surface exposure of the petroleum-bearing oil shale Mahogany ledge (Shultz and Mutz 1979, p. 40; Neese and Smith 1982, p. 64). Soils at these sites are shallow with virtually no soil horizon development, and the surface is usually covered with broken shale chips or light clay derived from the thinly bedded shale. About a third of all known point locations of plants in our files grow on slopes that are 10 degrees or less, with an average slope across all known points of 17.6 degrees (Service 2013, p. 2). The species' average elevation is 1,870 meters (m) (6,134 feet (ft)), with a range in elevation from 1,426 to 2,128 m (4,677 to 6,982 ft) (Service 2013, p. 4). Individuals of Graham's beardtongue usually grow on southwest-facing exposures (Service 2013, p. 1).

Graham's beardtongue is associated with a suite of species similarly adapted to xeric growing conditions on highly basic calcareous shale soils, including (but not limited to) saline wildrye (*Leymus salinus*), mountain thistle (*Cirsium eatonii* var. *eriocephalum*), spiny greaseweed (*Glossopetalon spinescens* var. *meionandra*), Utah juniper (*Juniperus osteosperma*), two-needle piñon (*Pinus edulis*), and shadscale saltbush (*Atriplex confertifolia*) (UNHP 2013, entire). Graham's beardtongue co-occurs with eight other rare species that are similarly endemic and restricted to the Green River Formation, including White River beardtongue.

2.1.4 Biology and Ecology

Graham's beardtongue individuals may live 20 to 30 years; however, we do not know the plant's average lifespan (Service 2012a, p. 2). Graham's beardtongue is not as genetically diverse as other common, widespread beardtongues from the same region (Arft 2002, p. 5). However, populations 1 through 9 (see Figure 1) have minor morphological differences from the rest of the Graham's beardtongue population (Shultz and Mutz 1979, p. 41) and may, due to geographic isolation, be genetically divergent from the remainder of the species' population, although this hypothesis has never been tested.

Graham's beardtongue usually flowers for a short period of time in late May through early July. Pollinators and flower visitors of Graham's beardtongue include the bees *Anthophora lesquerellae*, *Osmia sanrafaelae*, *Osmia rawlini*; the sweat bees *Lasioglossum sisymbrii* and *Dialictus* sp.; and the masarid wasp *Pseudomasaris vespoides*, which is thought to be the primary pollinator for Graham's beardtongue (Lewinsohn and Tepedino 2007, p. 245; Dodge and Yates 2008, p. 30). At least one large pollinator, *Bombus huntii* (Hunt's bumblebee), is known to visit Graham's beardtongue (71 FR 3158, January 19, 2006), which is not unexpected due to the relatively large size of Graham's beardtongue's flowers compared to other beardtongues.

Graham's beardtongue has a mixed mating system, meaning individuals of this species can self-fertilize, but they produce more seed when they are cross-pollinated (Dodge and Yates 2009, p. 18). Thus, pollinators are important to this species for maximum seed and fruit production.

Based on the size of the largest Graham's beardtongue pollinators (i.e., Hunt's bumblebee), we expect they are capable of travelling and transporting pollen for distances of at least 700 m (2,297 ft) (Service 2012b, pp. 8, 12). Therefore, maintaining sufficiently large numbers and population distribution of Graham's beardtongue ensures cross-pollination can occur and prevents inbreeding depression (Dodge and Yates 2009, p. 18). Pollinators generally need a diversity of native plants for foraging throughout the seasons, nesting and egg-laying sites, and undisturbed places for overwintering (Shepherd *et al.* 2003, pp. 49-50). Thus, it is important to protect vegetation diversity within and around Graham's beardtongue populations to maintain a diversity of pollinators.

2.1.5 Threats

In our proposed rule, we identified the destruction of plants and habitat, and habitat fragmentation due to energy exploration and development as a threat to Graham's beardtongue. Additionally, we determined the synergistic effects of increased energy development, livestock grazing, invasive weeds, small population sizes, and climate change to be a threat to this species. The remainder of this section provides a brief description of these factors, and more information can be found in the August 6, 2013 (78 FR 47832 and 78 FR 47832) proposed rules to list and designate critical habitat for Graham's beardtongue and White River beardtongue.

In our proposed rule, we found that the impacts of oil shale (and to a lesser extent, tar sands) development includes a reduction in population numbers, increased fragmentation, and habitat loss, impacting as much as 82 percent of the total known populations of Graham's beardtongue. If we include potential impacts from traditional oil and gas development, then 91 percent of Graham's beardtongue will be impacted by all types of energy development. Our estimate of impacts is likely an underestimate because we do not have information about how much private land is planned for development. In our proposed rule, we concluded that these levels of impacts are likely to lead to severe declines for the species across its range. The indirect impacts from oil and gas development, such as habitat fragmentation and loss, are likely to reduce the resiliency of the species so that it cannot recover from most stressors.

In our proposed rule, we concluded that the cumulative impact of increased energy development, livestock grazing, invasive weeds, small population sizes, and climate change are likely to severely limit the viability of Graham's beardtongue and as such are threats to the species. Smaller populations are more prone to extinction, and these smaller populations will also experience more severe effects of other factors. For example, incremental increases in habitat alteration and fragmentation from increased energy development (including oil shale, tar sands, and traditional oil and gas) will increase weed invasion and fugitive dust, as well as increase the severity of impacts from other factors such as grazing and road maintenance. Climate change is likely to augment the ability of invasive, nonnative species to out-compete native plant species and also reduce the ability of native plant species to recover in response to perturbations. Climate change may also change the effects of grazing events from native grazers to the extent that reproduction by the species is hindered so that populations are no longer resilient. This underscores the need to protect not only the associated plant communities within Graham's

beardtongue habitat, but those immediately adjacent to beardtongue habitat (Service 2012c, entire).

Without cohesive, landscape-level regulatory mechanisms in place to protect Graham's beardtongue from development on public lands, as development increases, habitat fragmentation and negative effects associated with it are likely to increase.

2.2 Background – White River beardtongue

2.2.1 Taxonomy and Species Description

White River beardtongue is an herbaceous perennial plant in the plantain family (Plantaginaceae). White River beardtongue is a shrubby plant with showy lavender flowers. It grows up to 50 cm (20 in) tall, with multiple clusters of upright stems. It has long, narrow, green leaves. Like other members of the beardtongue genus and like Graham's beardtongue, it has a strongly bilabiate (two-lipped) flower with a prominent infertile staminode (sterile male flower part), or "beardtongue." Blooming occurs from May into early June, with seeds produced by late June (Lewinsohn 2005, p. 9).

White River beardtongue was first described as a new species, *Penstemon albifluvis*, in 1982 (England 1982, entire). In 1984, the taxon was described as variety *P. scariosus* var. *albifluvis* (Cronquist *et al.* 1984, p. 442). *P. s.* var. *albifluvis* has a shorter corolla and shorter anther hairs than typical *P. scariosus*. White River beardtongue is also unique from *P. scariosus* because it is endemic to low-elevation oil shale barrens near the White River along the Utah-Colorado border (see "Habitat" below for more information), while typical *P. scariosus* habitat occurs at higher elevations on the West Tavaputs and Wasatch Plateaus of central Utah (Cronquist *et al.* 1984, p. 442).

2.2.2 Distribution

The historical range of White River beardtongue has not changed since the species was first described in 1982 (England 1982, pp. 367–368). White River beardtongue was first discovered along the north bank of the White River one mile upstream from the Ignacio Bridge (England 1982, pp. 367). The historical range was described as occurring from east central Uintah County, Utah, to Rio Blanco County, Colorado (England 1982, pp. 367).

White River beardtongue's current range extends from Raven Ridge west of Rangely in Rio Blanco County, Colorado, to the vicinity of Willow Creek in Uintah County, Utah. The bulk of the species' range occurs between Raven Ridge and Evacuation Creek in eastern Utah, a distance of about 30 km (20 miles) (Figure 2) (CNHP 2012, entire; UNHP 2012, entire). We acknowledge that herbarium collections from 1977 to 1998 (UNHP 2012, entire) indicate that the species' range might extend farther west to Willow Creek, Buck Canyon, and Kings Well Road. We have not revisited these herbarium collection locations to confirm the species' presence; however, it is possible that the herbarium collections represent individuals of the closely related and nearly indistinguishable Garrett's beardtongue (*Penstemon scariosus* var. *garrettii*).

Therefore, we consider these to be unverified locations and exclude these records from further analysis of threats (Figure 2).

2.2.3 Habitat

White River beardtongue is restricted to calcareous (containing calcium carbonate) soils derived from oil shale barrens of the Green River Formation in the Uinta Basin of northeastern Utah and adjacent Colorado. It overlaps with Graham's beardtongue at sites in the eastern portion of Graham's beardtongue's range.

White River beardtongue is associated with the Mahogany ledge. The habitat of White River beardtongue is a series of knolls and slopes of raw oil shale derived from the Green River geologic formation (Franklin 1995, p. 5). These soils are often white or infrequently red, fine-textured, shallow, and usually mixed with fragmented shale. These very dry substrates occur in lower elevations of the Uinta Basin, between 1,500 and 2,040 m (5,000 and 6,700 ft). About one-fifth of all known point locations of White River beardtongue are on slopes of 10 degrees or less, with an average slope for all known points of 19.2 degrees (Service 2013, p. 3). The species grows at an average elevation of 1,847 m (6,060 ft), with a range in elevation from 1,523 to 2,044 m (4,998 to 6,706 ft) (Service 2013, p. 4). White River beardtongue individuals usually grow on southwest-facing exposures (Service 2013, p. 1).

Other species found growing with White River beardtongue include (but are not limited to) saline wildrye (*Leymus salinus*), mountain thistle (*Cirsium eatonii* var. *eriocephalum*), spiny greasebush (*Glossopetalon spinescens* var. *meionandra*), Utah juniper (*Juniperus osteosperma*), twoneedle piñon (*Pinus edulis*), and shadscale saltbush (*Atriplex confertifolia*) (UNHP 2013, entire), and many of the other oil shale endemics also found growing with Graham's beardtongue (Neese and Smith 1982, p. 58; Goodrich and Neese 1986, p. 283).

2.2.4 Biology and Ecology

This species is probably long-lived due to the presence of a substantial and multi-branched woody stem (Lewinsohn 2005, p. 3), and individual plants living for 30 years are known to occur (Service 2012c, p. 3). Most plants begin to flower when the woody stem reaches 3 to 4 cm (1 to 1.5 in.) in height (Lewinsohn 2005, p. 4), usually in May and June.

The species is pollinated by a wasp, *Pseudomasaris vespoides*, and several native, solitary bee species in the genera *Osmia*, *Ceratina*, *Anthophora*, *Lasioglossum*, *Dialictus*, and *Halictus* (Sibul and Yates 2006, p. 14; Lewinsohn and Tepedino 2007, p. 235). We consider these pollinators to be medium in size as compared to the larger pollinators generally associated with Graham's beardtongue (see **Background—Graham's beardtongue**, "Biology", above). White River beardtongue has a mixed mating system, meaning it can self-fertilize but produces more seed when it is cross-pollinated (Lewinsohn and Tepedino 2007, p. 234). Thus, pollinators are important to this species for maximum seed and fruit production.

Based on the medium size of White River beardtongue' pollinators, we expect the pollinators are capable of travelling at least 500 meters (1,640 ft) and thus are likely to move pollen across this distance (Service 2012b, pp. 8, 13). Although White River beardtongue has low flower visitation rates by pollinators, there is no evidence that pollinators are limiting for this species (Lewinsohn and Tepedino 2007, p. 235). It is important to maintain the diversity of pollinators by maintaining vegetation diversity for White River beardtongue because it stabilizes the effects of fluctuations in pollinator populations (Lewinsohn and Tepedino 2007, p. 236).

We have very little information regarding the genetic diversity of White River beardtongue. This species, like Graham's beardtongue, is likely not as genetically diverse as other common, sympatric beardtongues (Arft 2002, p. 5).

2.2.5 Threats

In our proposed rule, we determined that White River beardtongue is threatened with destruction of plants and habitat, and habitat fragmentation due to energy exploration and development. Additionally, we concluded that the synergistic effects of increased energy development, livestock grazing, invasive weeds, small population sizes, and climate change are threats to this species. The remainder of this section provides a brief description of these threats, and more information can be found in the August 6, 2013 (78 FR 47590 and 78 FR 47832) proposed rules to list and designate critical habitat for Graham's beardtongue and White River beardtongue.

In our proposed rule, we found that the impacts of oil shale (and to a lesser extent, tar sands) development include a reduction in population numbers, increased fragmentation, and habitat loss, impacting as much as 94 percent of the total known populations of White River beardtongue. If we include potential impacts from traditional oil and gas development, then 100 percent of White River beardtongue will be impacted by all types of energy development. Our estimate of impacts is likely an underestimate because we do not have information about how much private land is planned for development. These levels of impact are likely to lead to severe declines for the species across its range. The indirect impacts from oil and gas development, such as habitat fragmentation and loss, are likely to reduce the resiliency of both species so that they cannot recover from most stressors.

In our proposed rule, we concluded that the cumulative impact of increased energy development, livestock grazing, invasive weeds, small population sizes, and climate change are likely to severely limit the viability of White River beardtongue and as such are threats to the species. Smaller populations are more prone to extinction, and these smaller populations will also experience more severe effects of other factors. For example, incremental increases in habitat alteration and fragmentation from increased energy development (including oil shale, tar sands, and traditional oil and gas) will increase weed invasion and fugitive dust, as well as increase the severity of impacts from other factors such as grazing and road maintenance. Climate change is likely to augment the ability of invasive, nonnative species to out-compete native plant species and also reduce the ability of native plant species to recover in response to perturbations. Climate change may also change the effects of grazing events from native grazers to the extent

that reproduction of either beardtongue species is hindered so that populations are no longer resilient. This underscores the need to protect not only the associated plant communities within White River beardtongue habitat, but those immediately adjacent to beardtongue habitat (Service 2012c, entire).

Without cohesive, landscape-level regulatory mechanisms in place to protect White River beardtongue from development on public lands, as development increases, habitat fragmentation and negative effects associated with it are likely to increase.

2.3 Endangered Species Act

The majority of the information below comes from our proposed listing rule (78 FR 47590; August 6, 2013). For further information on the two beardtongue species, please refer to this rule.

2.3.1 Critical Habitat

Critical habitat is defined in section 3(5)(A) of the ESA as – (i) the specific areas within the geographical area occupied by a species, at the time it is listed in accordance with the ESA, on which are found those physical or biological features (I) essential to the conservation of the species and (II) that may require special management considerations or protection; and (ii) specific areas outside the geographical area occupied by a species at the time it is listed, upon a determination that such areas are essential for the conservation of the species. The term “conservation” as defined in section 3(3) of the ESA, means “to use and the use of all methods and procedures which are necessary to bring an endangered species or threatened species to the point at which the measures provided pursuant to this Act are no longer necessary” (i.e., the species is recovered and removed from the list of threatened and endangered species).

Section 4(b)(2) of the ESA requires that we base critical habitat designation on the best scientific and commercial data available, taking into consideration the economic impact, and any other relevant impact, of specifying any particular area as critical habitat. We may exclude areas from critical habitat designation if we determine that the benefits of exclusion outweigh the benefits of including the areas as critical habitat, provided the exclusion will not result in the extinction of the species. Within the geographic area occupied by the species, we will designate only areas currently known to be “essential to the conservation of the species.” Critical habitat should already have the features and habitat characteristics that are necessary to sustain the species. We will not speculate about what areas might be found to be essential if better information were available, or what areas may become essential over time. If information available at the time of designation does not show that an area provides essential support for a species at any phase of its life cycle, then the area should not be included in the critical habitat designation. Within the geographic area occupied by the species, we will not designate areas that do not now have the physical and biological features that provide essential life cycle needs for the species.

Habitat is often dynamic, and species may move from one area to another over time. Furthermore, we recognize designation of critical habitat may not include all habitat eventually determined as necessary to recover the species. For these reasons, areas outside the critical habitat designation will continue to be subject to conservation actions that may be implemented under section 7(a)(1) and the regulatory protections afforded by the section 7(a)(2) jeopardy standard and section 9 protections, as determined on the basis of the best available information at the time of the action. We specifically anticipate that federally-funded or assisted projects affecting listed species outside their designated critical habitat areas may still result in jeopardy findings in some cases. Similarly, critical habitat designations made on the basis of the best available information at the time of designation will not control the direction and substance of future recovery plans, habitat conservation plans, or other species conservation planning efforts if new information available to planning efforts calls for a different outcome.

In accordance with section 3(5)(A)(i) of the ESA and regulations at 50 CFR 424.12 in determining which areas to propose as critical habitat, we are required to base critical habitat determinations on the best scientific and commercial data available and to consider physical and biological features that are essential to the conservation of the species, and that may require special management considerations or protection. These include, but are not limited to (1) space for individual and population growth, and for normal behavior; (2) food, water, air, light, minerals, or other nutritional or physiological requirements; (3) cover or shelter; (4) sites for breeding, reproduction, rearing (or development) of offspring; and (5) habitats protected from disturbance or that are representative of the historic geographical and ecological distributions of a species.

2.3.2 Section 7 Consultation

Section 7(a)(2) of the ESA requires every Federal agency, in consultation with and with the assistance of the Secretary, to insure that any action it authorizes, funds, or carries out is not likely to jeopardize the continued existence of a listed species or result in the destruction or adverse modification of designated critical habitat. In fulfilling these requirements, each agency is to use the best scientific and commercial data available. This section of the ESA sets out the consultation process, which is further implemented by regulation (50 CFR 402).

Each Federal agency is to review its actions at the earliest possible time to determine whether any action may affect listed species or critical habitat. If the action may affect a listed species or critical habitat, consultation with the Service is required.

Informal consultation is an optional process that includes all discussions and correspondence between the Service and a Federal agency or designated non-Federal representative, designed to assist the Federal agency in determining whether formal consultation or a conference is required. If during consultation it is determined by the Federal agency, with the written concurrence of the Service, that the action is not likely to adversely affect listed species or critical habitat, the consultation process is terminated, and no further action is necessary. During informal consultation, the Service may suggest modifications to the action that the Federal agency and any

applicant could implement to avoid the likelihood of adverse effects to listed species or critical habitat.

If the proposed action is likely to adversely affect a listed species or designated critical habitat, formal consultation with the Service is required. Formal consultation is a process between the Service and a Federal agency or applicant that (1) determines whether a proposed Federal action is likely to jeopardize the continued existence of listed species or destroy or adversely modify designated critical habitat; (2) begins with a Federal agency's request and submittal of a complete initiation package; and (3) concludes with the issuance of a biological opinion.

With the request to initiate formal consultation, the Federal agency is to include (1) a description of the proposed action; (2) a description of the area that may be affected; (3) a description of any listed species or critical habitat that may be affected; (4) a description of the manner in which the listed species or critical habitat may be affected and an analysis of cumulative effects; (5) relevant reports including any environmental impact statement, environmental assessment, or biological assessment, and (6) any other relevant and available information.

Formal consultation concludes 90 days after its initiation. Within 45 days after concluding formal consultation, the Service is to deliver a biological opinion to the Federal agency and any applicant. The biological opinion will include the Service's opinion on whether the action is likely to jeopardize the continued existence of a listed species or result in the destruction or adverse modification of critical habitat. If the action is likely to jeopardize the continued existence of a listed species or result in the destruction or adverse modification of critical habitat, the biological opinion will include a reasonable and prudent alternative, if any exist. A reasonable and prudent alternative is a recommended alternative action that can be implemented consistent with the scope of the Federal agency's legal authority and jurisdiction, that is economically and technologically feasible, and that would avoid the likelihood of jeopardizing the continued existence of the listed species or the destruction or adverse modification of designated critical habitat.

For animal species, in those cases where the Service concludes that an action (or the implementation of any reasonable and prudent alternatives) and the resultant incidental take of listed species will not violate section 7(a)(2), the Service will provide with the biological opinion a statement concerning incidental take that--(1) specifies the impact of the take on the species; (2) specifies the reasonable and prudent measures to minimize the impact; (3) sets forth terms and conditions that must be complied with by the Federal agency or any applicant to implement the reasonable and prudent measures; and (4) specifies procedures to handle any individuals actually taken. Reasonable and prudent measures, along with the terms and conditions that implement them, cannot alter the basic design, location, scope, duration, or timing of the actions and may involve only minor changes. Any "taking" covered in the incidental take statement and in compliance with the terms and conditions of the statement is not a prohibited taking under the ESA and no other authorization or permit under the ESA is required.

For plant species, take is generally not prohibited under section 7 of the ESA and no incidental take statement for the plants is provided in biological opinions addressing plants. However, we still evaluate project effects and recommend corresponding conservation measures.

2.3.3 Technical Assistance

Although it is not defined in the regulations, technical assistance includes those parts of the informal consultation that provide information to agencies, applicants, and/or consultants, but specifically stops short of concurrence on “may effect” determinations. The term is used to differentiate “informal” consultation (where a concurrence with an agency, applicant, or consultant on “may effect” is provided) and the provision of information. This differentiation is primarily made for record-keeping purposes.

A telephoned or written inquiry about the presence or absence of listed and/or proposed species in a project area usually initiates informal consultation and frequently generates technical assistance. We may respond in different ways:

- a) If species are not likely to be present, the consultation requirement is met and we will advise the agency, applicant or consultant.
- b) If historical records or habitat similarities suggest the species may be in the area, then we may recommend survey work to make a more precise determination.
- c) If the species is definitely in the project area, but we determine it will not be adversely affected, we will notify the agency of that finding.

Technical assistance may take a variety of forms. It can include information on candidate species as well as names of contacts having information on State listed species. We may provide correspondence to State agencies or other Service offices to alert them to a project and its potential affects to listed or proposed species.

As a part of technical assistance, we may recommend:

- a) That the action agency conduct additional studies on the species’ distribution in the area affected by the action, or
- b) That the action agency monitors impacts of the action on aspects of the species’ life cycle. We may recommend monitoring when incidental take is not anticipated, but might possibly occur, thus triggering the need for project changes or formal consultation.

2.3.4 Section 9 Prohibitions

Section 9 of the ESA prohibits removing and reducing to possession, or the malicious damage or destruction of endangered species of plants on Federal lands. The Service has issued regulations

(50 CFR 17.71) that generally apply to threatened plants, very roughly extending the ESA prohibitions to threatened species.

2.3.5 Section 10 Permits

Under Section 10(a)(1)(A) of the ESA, permits can be issued for any actions prohibited under Section 9. These permits may be granted to enhance the propagation or survival of the affected species. Section 10(a)(1)(B) and section 7 incidental take statements are not needed for plants, but corresponding section 7 consultation and an evaluation of project impacts to plant species is still done for permit issuance.

3.0 Description of Alternatives

This section describes the proposal for critical habitat for Graham's and White River beardtongues. Alternatives are different ways of meeting the purpose and need for critical habitat designation as described in chapter one of this Draft EA, which can be summarized as to provide protection of habitat that is essential to the conservation of listed species. In addition, we considered two potential alternatives without thoroughly examining the impacts of their implementation.

3.1 Alternatives Considered But Not Fully Evaluated

3.1.1 Proposing Critical Habitat that does not Include All Occupied Habitats. We considered a critical habitat designation that did not include the entire range of Graham's and White River beardtongues. However, the threats that we identified in our proposed rule are similar across the species' ranges and therefore it was appropriate to propose all occupied habitats in critical habitat units. As such, we did not further evaluate this alternative in this Draft EA.

3.1.2 Proposing Critical Habitat that Includes Unoccupied Habitats. We considered critical habitat for unoccupied, suitable habitat areas across the range of Graham's and White River beardtongues. However, we determined that conservation of the occupied areas are sufficient for the long-term viability of both species. As such, we did not further evaluate that alternative in this Draft EA.

3.1.3 Development of Conservation Agreements

The development of Conservation Agreements with state and federal agencies and private landowners to gain similar protection to that afforded by designation of critical habitat can preclude the need to designate critical habitat. In April 2014, a draft conservation agreement for Graham's and White River beardtongues was developed by the Service, the BLM Utah State Office, BLM Utah Vernal Field Office, BLM White River Field Office, State of Utah School and Institutional Trust Lands Administration (SITLA), Utah Public Lands Policy Coordination Office, and Uintah County, Utah. This voluntary 15-year Conservation Agreement outlines

conservation measures that will be enacted throughout the range of each species to address the threats that were identified in our 2013 proposed rule. The Conservation Agreement is a new agreement and not an amendment to the 2007 Graham's beardtongue Conservation Agreement which expired in 2012. For further detail of the 2007 Conservation Agreement, please see our proposed listing rule (78 FR 47590).

As part of the final rule making process, the commitments contained in the 2014 Conservation Agreement will be evaluated through our Policy of Evaluation of Conservation Efforts When Making Listing Decisions (PECE Policy) (68 FR 15112) to determine their potential effectiveness at offsetting threats identified in the proposed rule. Because conservation commitments identified in the 2014 Conservation Agreement have yet to be implemented and still need to be evaluated for their effectiveness and commented on by the public, a "Conservation Agreement Alternative" was considered but not fully evaluated as a viable alternative for the purposes of this document. However, the PECE analysis of the 2014 Conservation Agreement will be conducted in early 2014, and the results will be available for public review and included in any final listing determination for Graham's and White River beardtongues.

3.2 Alternative A. No Action Alternative

Pursuant to NEPA and its implementing regulations (40 CFR 1502.14), we are required to consider the No Action Alternative. Alternative A, the No Action Alternative, would maintain the status quo - that is, we would not designate critical habitat for Graham's and White River beardtongues. While no critical habitat would be present under this alternative, the protection provided to both beardtongue species by being listed as 'threatened' under the ESA would still apply. As such, the protections afforded to Graham's and White River beardtongues when classified as 'threatened' under the ESA are considered the baseline against which we evaluate the action alternative described below. In the draft economic analysis, the costs listed as baseline would be associated with this alternative.

3.3 Alternative B. Designation of Critical Habitat (Proposed Action)

Under Alternative B, our Proposed Action, we would designate critical habitat as described in the proposed rule and published in the Federal Register on August 6, 2013 (78 FR 47832). We proposed to designate approximately 27,502 hectares (ha) (67,959 acres (ac)) as critical habitat for Graham's beardtongue in Duchesne and Uintah Counties in Utah and Rio Blanco County in Colorado. We proposed to designate approximately 6,036 hectares (ha) (14,940 acres (ac)) as critical habitat for White River beardtongue in Duchesne and Uintah Counties in Utah and Rio Blanco County in Colorado.

Alternative B, the Proposed Action, includes the designation of critical habitat in areas believed to contain the physical and biological features upon which Graham's and White River beardtongues depend. We refer to these essential habitat features as "primary constituent

elements” (PCEs). The PCEs for both species includes those habitat components essential for the biological needs of growing, reproducing, dispersing, and exchanging genetic material.

Physical and biological features required for Graham’s beardtongue include: the appropriate plant community, suitable slopes and topography, appropriate soils and geology, appropriate climate, and adequate habitat for reproduction through pollinators. Physical and biological features required for White River beardtongue include: the appropriate plant community, suitable slopes and topography, appropriate soils and geology, appropriate climate, and adequate habitat for reproduction through pollinators. Please see the proposed critical habitat rule for a further description of how we developed these PCEs (78 FR 47832).

All proposed critical habitat units are occupied by the species, however there are occupied and unoccupied habitats within the units. Therefore, we have identified two zones (or buffers) within the critical habitat units for use in our environmental assessment and the accompanying economic analysis (Industrial Economics, Inc. May 1, 2014)—a consultation buffer and a pollinator buffer.

Consultation Buffer: The areas of the critical habitat units that are occupied by the species is considered the “consultation buffer,” because it is within these areas that section 7 consultation would be conducted regardless of whether or not critical habitat is designated.

Pollinator Buffer: The areas of the critical habitat units that are unoccupied by the species but were included because of their ecological importance for pollinators is considered the “pollinator buffer.” We used pollinator travel distances to define the outer proposed critical habitat boundaries because the beardtongue species are dependent on pollinators for maximum reproduction. Graham’s beardtongue is pollinated by medium to large sized pollinators that are capable of travelling 700 meters (m) (2,297 feet (ft)). White River beardtongue is pollinated by small to medium sized pollinators which are capable of travelling at least 500 m (1,640 ft).

Overall, the pollinator travel distances (and pollinator buffer) are larger than our section 7 consultation distance (and consultation buffer) for both species, which is restricted to within 300 feet (ft.) (91 meters (m.)) of plants in Utah and 984 ft. (300 m.) of plants in Colorado.

See **section 5.2: Fish, Wildlife, and Plants** for further detail on section 7 consultation.

The PCEs for Graham’s beardtongue include:

- (i) *Plant Community.*
 - a. Barren areas with little, but diverse, plant cover.
 - b. Presence of dwarf shrubs and cushion-like, oil shale endemic plants, including Dragon milkvetch (*Astragalus lutosus*), oilshale columbine (*Aquilegia barnebyi*), Barneby’s thistle (*Cirsium barnebyi*), oilshale cryptantha (*Cryptantha barnebyi*),

Graham's cryptantha (*Cryptantha grahamii*), Rollins' cryptantha (*Cryptantha rollinsii*), ephedra buckwheat (*Eriogonum ephedroides*), and White River beardtongue (*Penstemon scariosus* var. *albifluvis*).

- c. Intact, surrounding, native plant community to support pollinators and protect from the encroachment of invasive weeds and other potential threats
- (ii) *Slopes and Topography.*
 - a. Southwest- to western-facing slopes.
 - b. Slopes of less than 40 degrees; average slope of 17.6 degrees.
- (iii) *Soils and Geology.*
 - a. Parachute Creek Member and other upper members of the Green River Geologic Formation.
 - b. Appropriate soil morphology characterized by shallow soils with virtually no soil horizon development, with a surface usually covered by broken shale channers or light clay derived from the thinly bedded shale.
 - c. Intact soils with minimal anthropogenic disturbance (at or below current levels) within Graham's beardtongue occupied habitat and nearby plant communities.
- (iv) *Climate.*
 - a. A cold desert climate with the same conditions under which the species evolved and is typical for the area. Annual precipitation of 15 to 30 cm (6 to 12 inches) with most precipitation in spring and fall and snow cover from December through March. Average winter low temperature of -14 °C (7 °F) and average summer high of 34 °C (93 (°F)) with at least 45 to 90 consecutive days less than 4 °C (40 °F).
- (v) *Habitat for Pollinators.*
 - a. Ground and twig nesting areas for pollinators. A diverse mosaic of native plant communities that include flowering plants that provide nectar and pollen for a wide array of pollinator species.
 - b. Connectivity between areas allowing pollinators to move from one site to the next within each population.
 - c. A 700-m (2,297-ft) area beyond occupied habitat to conserve the pollinators essential for plant reproduction.

The PCEs for White River beardtongue include:

- (i) *Plant Community.*
 - a. Barren areas with little, but diverse, plant cover.
 - b. Presence of dwarf shrubs and cushion-like, oil shale endemic plants, including Dragon milkvetch (*Astragalus lutosus*), oilshale columbine (*Aquilegia barnebyi*), Barneby's thistle (*Cirsium barnebyi*), oilshale cryptantha (*Cryptantha barnebyi*),

Graham's cryptantha (*Cryptantha grahamii*), Rollins' cryptantha (*Cryptantha rollinsii*), ephedra buckwheat (*Eriogonum ephedroides*), and White River beardtongue (*Penstemon scariosus* var. *albifluvis*).

- c. Intact, surrounding, native plant community to support pollinators and protect from the encroachment of invasive weeds and other potential threats
- (ii) *Slopes and Topography.*
 - a. Southwest- to western-facing slopes.
 - b. Slopes of less than 40 degrees; average slope of 17.6 degrees.
- (iii) *Soils and Geology.*
 - a. Parachute Creek Member and other upper members of the Green River Geologic Formation.
 - b. Appropriate soil morphology characterized by shallow soils with virtually no soil horizon development, with a surface usually covered by broken shale channers or light clay derived from the thinly bedded shale.
 - c. Intact soils with minimal anthropogenic disturbance (at or below current levels) within Graham's beardtongue occupied habitat and nearby plant communities.
- (iv) *Climate.*
 - a. A cold desert climate with the same conditions under which the species evolved and is typical for the area. Annual precipitation of 15 to 30 cm (6 to 12 inches) with most precipitation in spring and fall and snow cover from December through March. Average winter low temperature of -14 °C (7 °F) and average summer high of 34 °C (93 (°F)) with at least 45 to 90 consecutive days less than 4 °C (40 °F).
- (v) *Habitat for Pollinators.*
 - a. Ground and twig nesting areas for pollinators. A diverse mosaic of native plant communities that include flowering plants that provide nectar and pollen for a wide array of pollinator species.
 - b. Connectivity between areas allowing pollinators to move from one site to the next within each population.
 - c. A 700-m (2,297-ft) area beyond occupied habitat to conserve the pollinators essential for plant reproduction.

A complete discussion of the criteria used for defining critical habitat can be found in the August 6, 2013, proposal to designate critical habitat for the Graham's and White River beardtongues (78 FR 47832).

3.4 Summary of Actions by Alternative

In Tables 1 and 2, we provide a comparison between Alternative A (No Action) and Alternative B (the Proposed Action).

Table 1. Proposed Critical Habitat for Graham’s beardtongue.

CRITICAL HABITAT UNIT	NO ACTION	ACTION ALTERNATIVE
1. Sand Wash	0 ha (0 ac)	3,159 ha (7,805 ac)
2. Seep Ridge	0 ha (0 ac)	10,162 ha (25,110 ac)
3. Evacuation Creek	0 ha (0 ac)	6,929 ha (17,122 ac)
4. White River	0 ha (0 ac)	4,691 ha (11,592 ac)
5. Raven Ridge	0 ha (0 ac)	2,562 ha (6,330 ac)
TOTAL	0 ha (0 ac)	27,502 ha (67,959 ac)

Table 2. Proposed Critical Habitat for White River beardtongue.

CRITICAL HABITAT UNIT	NO ACTION	ACTION ALTERNATIVE
1. North Evacuation Creek	0 ha (0 ac)	2,969 ha (7,336 ac)
2. Weaver Ridge	0 ha (0 ac)	2,836 ha (7,006 ac)
3. South Raven Ridge	0 ha (0 ac)	232 ha (573 ac)
TOTAL	0 ha (0 ac)	6,036 ha (14,914 ac)

4.0 Description of the Affected Environment

The geographic area for Alternative B, the Proposed Action, includes 27,502 ha (67,959 ac) for Graham’s beardtongue and 6,036 ha (14,940 ac) for White River beardtongue. The proposed critical habitat for Graham’s beardtongue is located in Duchesne and Uintah Counties in Utah and Rio Blanco County in Colorado on Federal, State and private lands. The proposed critical habitat for White River beardtongue is located in Uintah County in Utah and Rio Blanco County in Colorado on Federal, State and private lands. White River beardtongue critical habitat overlaps Graham’s beardtongue critical habitat—approximately 54 percent of all proposed White River beardtongue critical habitat overlaps with Graham’s beardtongue’s proposed critical habitat. Graham’s and White-river beardtongue co-occur on 2,844 ha (7,028 ac) of proposed critical habitat in all three units of White River beardtongue proposed critical habitat units and within the Evacuation Ridge, White River, and Raven Ridge units of Graham’s beardtongue proposed critical habitat.

Private, state, and federal lands are included in the Proposed Action. The designation of critical habitat directly affects only Federal agencies. The ESA requires Federal agencies to ensure that actions they fund, authorize, or carry out do not destroy or adversely modify critical habitat to the extent that the action appreciably diminishes the value of the critical habitat for the survival and recovery of the species. Individuals, organizations, States, local and Tribal governments, and other non-Federal entities are only affected by the designation of critical habitat if their actions occur on Federal lands, require a Federal permit, license, or other authorization, or involve Federal funding (for example, Section 404 Clean Water Act permits from the U.S. Army Corps of Engineers or funding of activities by the Natural Resources Conservation Service (NRCS)).

4.1 Physical Environment

Please see “Habitat” portion contained in the Background section (2.1) above.

4.2 Fish, Wildlife, and Plants

Table 3 below summarizes the candidate, threatened, and endangered species that may occur in Duchesne, Uintah, and Rio Blanco Counties. We have assessed whether these species occur in the two beardtongue’s critical habitat units (Alternative B) in the comment columns. Migratory songbirds, various big game species, amphibians, and reptiles also use habitat within the Proposed Action area.

Table 3. Candidate, threatened, and endangered species in Duchesne and Uintah Counties, Utah and Rio Blanco County, Colorado.

COMMON NAME	SCIENTIFIC NAME	TAXONOMIC GROUP	STATUS	COUNTIES	CRITICAL HABITAT COMMENTS
Humpback chub	<i>Gila cypha</i>	Fish	endangered	Duchesne, Uintah	Critical habitat on Green River begins downriver along Carbon County line; runoff from all Units feeds into habitat.
Bonytail chub	<i>Gila elegans</i>	Fish	endangered	Duchesne, Uintah	Critical habitat on Green River begins downriver along Carbon County line; runoff from all Units feeds into habitat.
Colorado pikeminnow	<i>Ptychocheilus lucius</i>	Fish	endangered	Duchesne, Uintah, Rio Blanco	Critical habitat occurs along Green and White Rivers adjacent to Graham's beardtongue subunits 1F, 1G, 1H, 1I, 4A, 4B, 5B, 5C and White River beardtongue subunits 2A, and 2G. Runoff from all Units feeds into habitat.
Razorback sucker	<i>Xyrauchen texanus</i>	Fish	endangered	Duchesne, Uintah	Critical habitat occurs along Green River adjacent to Graham's beardtongue subunits 1F, 1G, 1H, 1I, 4A, 4B, 5B, 5C, and along the White River downstream of Graham's beardtongue Units 2, 3, 4, and 5, and of White River beardtongue Units 1, 2, and 3. Runoff from all Units feeds into habitat.
Mexican spotted owl	<i>Strix occidentalis lucida</i>	Bird	threatened	Duchesne, Uintah	Forested mountains and canyonlands. Critical habitat is less than two miles from proposed Graham's beardtongue subunit 1F.
Greater sage-grouse	<i>Centrocercus urophasianus</i>	Bird	candidate	Duchesne, Uintah, Rio Blanco	No critical habitat. Winter range overlaps with Graham's beardtongue Units 1, 2, 3, 4, and 5; and White River beardtongue Units 1, 2, and 3, and subunit 5A. No overlap of leks and plant proposed critical habitat.

COMMON NAME	SCIENTIFIC NAME	TAXONOMIC GROUP	STATUS	COUNTIES	CRITICAL HABITAT COMMENTS
Yellow-billed Cuckoo	<i>Coccyzus americanus</i>	Bird	Proposed threatened	Duchesne, Uintah, Rio Blanco	No critical habitat. Breeds in riparian woodlands, especially cottonwoods and willows; may pass through plant proposed critical habitat during migration.
Black-footed ferret	<i>Mustela nigripes</i>	Mammal	endangered	Uintah, Rio Blanco	No critical habitat. 10j population occurs in Coyote Basin, Uintah County, and in adjacent Colorado. No overlap of ferret suitable habitat and plant proposed critical habitat.
Canada lynx	<i>Lynx canadensis</i>	Mammal	threatened	Duchesne, Uintah	No critical habitat in Utah. Extremely rare in Utah, small population in Colorado. Occurs in boreal forests with deep snow accumulations and snowshoe hare populations; may pass through plant proposed critical habitat during dispersal events.
North American wolverine	<i>Gulo gulo luscus</i>	Mammal	candidate	Rio Blanco	No critical habitat. Extremely rare in Utah and Colorado. No overlap of alpine habitats and plant proposed critical habitat.
Shrubby reed-mustard	<i>Schoenocrambe suffrutescens</i>	Plant	endangered	Duchesne, Uintah	No critical habitat. Overlap with Graham's beardtongue subunits 1A, 1B, 1C, 1D, 1E, 1F, 1G, 1I, and possible overlap in subunits 2A, 2B, 2C but not surveyed.
Clay reed-mustard	<i>Schoenocrambe argillacea</i>	Plant	Threatened	Uintah	No critical habitat. Overlap with Graham's beardtongue subunits 1D, 1E, 1F, 1G, 1H, 1I.
Barneby ridge-cress	<i>Lepidium barnebyanum</i>	Plant	endangered	Duchesne	No critical habitat. No overlap with plant proposed critical habitat; approximately 19 miles NE of Graham's beardtongue subunit 1A.
Dudley Bluffs twinpod	<i>Physaria obcordata</i>	Plant	threatened	Rio Blanco	No critical habitat. No overlap with plant proposed critical habitat.

COMMON NAME	SCIENTIFIC NAME	TAXONOMIC GROUP	STATUS	COUNTIES	CRITICAL HABITAT COMMENTS
Dudley Bluffs bladderpod	<i>Lesquerella congesta</i>	Plant	threatened	Rio Blanco	No critical habitat. No overlap with plant proposed critical habitat.
Ute ladies'-tresses	<i>Spiranthes diluvialis</i>	Plant	threatened	Duchesne, Uintah, Rio Blanco	No critical habitat. No overlap of riparian habitat and plant proposed critical habitat.
Pariette cactus	<i>Sclerocactus brevispinus</i>	Plant	threatened	Duchesne, Uintah	No critical habitat. No overlap with plant proposed critical habitat; approximately 5 miles North of Graham's beardtongue subunit 1H.
Uinta Basin hookless cactus	<i>Sclerocactus wetlandicus</i>	Plant	threatened	Duchesne, Uintah	No critical habitat. Complete overlap with Graham's beardtongue Unit 1 (entire).

4.3 Human Environment

A wide diversity of human activities and land uses occur throughout or adjacent to the area identified for designation as critical habitat in Utah under Alternative B. These activities and uses include: (1) energy development (and associated actions such as utility infrastructure); (2) transportation; (3) grazing; and (4) recreation. Private, State and Federal lands are included in the Proposed Action area.

Please see “Threats” under section 2.1 above for more information on the human environment and uses.

4.4 Tribal Lands

There are tribal lands of the Ute Indian Tribe of the Uintah and Ouray Reservation located within the geographic range of Graham’s and White River beardtongues. Potential habitat for both species is found within the Reservation boundaries, but these lands are not included in the proposed action area.

5.0 Environmental Consequences

This section reviews the expected environmental consequences of designating critical habitat for Graham’s and White River beardtongues under Alternative B, the Proposed Action, and the No Action Alternative. Evaluating the impacts of designating critical habitat is done here by comparing a scenario where we would not designate critical habitat versus our proposed critical habitat designation. Measured differences between the existing baseline and the scenario in which critical habitat is designated, as proposed include changes in: (1) land use; (2) environmental quality; (3) property values; and (4) time and effort expended on consultations and other activities by Federal landowners, Federal action agencies, and State and local governments and private third parties with a Federal nexus. These incremental changes may be either positive or negative.

Regardless of which alternative is chosen, or whether a Federal action affects critical habitat; in accordance with section 7(a)(2) of the ESA, Federal agencies are required to review actions they authorize, fund, or carry out to determine the effects of proposed actions on federally-listed species. If the Federal agency determines that its action may adversely affect a listed species, it must enter into formal consultation with the Service. This consultation results in a biological opinion issued by the Service as to whether the proposed action is likely to jeopardize the continued existence of the species, which is prohibited under the ESA.

A similar review process is required when designated critical habitat is established for a species. While reviewing their actions to determine the effect on the listed species, Federal agencies also review their action for the effects on critical habitat and enter into section 7 consultations with us on actions they determine may affect critical habitat. If the proposed action is determined to be likely to adversely affect critical habitat, the consultation would result in a biological opinion as

to whether the proposed action is likely to destroy or adversely modify designated critical habitat, which also is prohibited under the ESA. Under Alternative B, critical habitat would be designated; therefore, instances would occur where the Federal action agency would be required to address both the jeopardy standard and the destruction or adverse modification of critical habitat standard in section 7 consultations.

Activities that would jeopardize the continued existence of a species are defined as those actions that “reasonably would be expected, directly or indirectly, to reduce appreciably the likelihood of both the survival and recovery” of the listed species (50 CFR 402.02). Activities that would destroy or adversely modify critical habitat will most often also result in jeopardy to the species.

It is difficult to differentiate between consultations that result from the listing of this species (i.e., jeopardy to the species) and consultations that result from the presence of critical habitat (i.e., destruction or adverse modification of critical habitat). The draft economic analysis (Industrial Economics, Inc., 2014) quantifies the potential economic impacts associated with future section 7 consultations in or near proposed critical habitats and is incorporated into this environmental assessment. The following discussion will disclose the potential cost attributable to critical habitat designation, when available, from the draft economic analysis.

Individuals, organizations, States, local governments, and other non-Federal entities are only affected by the designation of critical habitat if their actions occur on Federal lands, require a Federal permit, license, or other authorization, or involve Federal funding (for example, Clean Water Act 404 permits from the U.S. Army Corps of Engineers, dam licensing or relicensing by the Federal Energy Regulatory Commission, or funding of activities by the Natural Resource Conservation Service).

Potential environmental consequences that may result from implementation of the No Action and Proposed Action are discussed below. All impacts are expected to be indirect, as critical habitat designation does not in itself directly result in any alteration of the environment.

As required by NEPA, this document is in part intended to disclose the programmatic goals and objectives of the ESA. These objectives include protection of natural communities and ecosystems, minimization of fragmentation and promotion of the natural patterns and connectivity of wildlife habitats, promotion of native species and avoidance of the of non-native species introduction, protection of rare and ecologically important species and unique or sensitive environments, maintenance of naturally occurring ecosystem processes and genetic and structural diversity, and restoration of ecosystems, communities and recovery of species.

5.1 Physical Environment

None of the alternatives will directly impact the physical environment since this an administrative action only.

5.2 Fish, Wildlife, and Plants

Alternative A - Under the No Action Alternative, there would be no designation of critical habitat under the ESA and no change to land management designations in the Graham's and White River beardtongues areas. Under this alternative, federally supported actions that may affect Graham's and/or White River beardtongues would require section 7 consultations under the jeopardy standards in all areas occupied by each species. Analysis under the adverse modification standard would not be required because no critical habitat would be designated.

As they relate to Graham's and/or White River beardtongues, such consultations would likely include but not be limited to energy development, livestock grazing and management, fire suppression, fuel reduction treatments, and weed management treatments. Conservation measures implemented for the beardtongues under section 7 consultations, including avoidance buffers, may indirectly benefit other fish, wildlife, and plant species that occur in the same geographic areas (see Alternative B, below). In addition, the lack of critical habitat designation for the beardtongues does not preclude habitat protection or improvement actions under other federal programs for other fish, wildlife, and plant species. Consequently, this alternative would have no impact or be beneficial in site-specific instances to other fish, wildlife, and plants, including candidate, proposed, or listed species, beyond those conservation measures resulting from the listing of Graham's and White River beardtongues (78 FR 47590) and associated requirements of section 7 of the ESA.

Alternative B - Under the Proposed Action, the BLM Vernal and White River Field Offices may need to reinitiate section 7 consultation with the Service on their 2008 RMP as a result of listing Graham's and White River beardtongues and designating critical habitat for each species.

In general, designation of critical habitat could potentially have three effects on new section 7 consultations: (1) increasing the number of consultations; (2) changing the outcome of consultations; or (3) increasing the complexity of consultations. In the case of Graham's and White River beardtongues critical habitat, both number one and three are likely to occur.

All proposed critical habitat units are occupied by the species; however, portions of the critical habitat units may not be occupied at the time of consultation because the project area occurs within pollinator habitat, the species is not present above-ground but persists as a seedbank, or the species becomes extirpated from areas. For the purposes of section 7 consultations, the areas of critical habitat within the consultation buffer are considered occupied, while the areas outside of the consultation buffer but within the ecologically important pollinator buffer are considered unoccupied (see **section 3.3**, above). In the consultation buffer, designation of critical habitat will increase the complexity of the consultations. There would be no increase in consultations because federally supported actions would already require section 7 consultation under the jeopardy standard. In the consultation buffer, the outcomes of section 7 consultations are unlikely to be materially different whether or not critical habitat is designated because actions that would detrimentally affect PCEs would also impact reproduction, growth, and survival of Graham's and White River beardtongues. In other words, conservation efforts requested by us through section 7 consultations to avoid potential destruction or adverse modification of critical

habitat are unlikely to be different from those we recommend to avoid jeopardy of the species. The complexity of section 7 consultations would be greater because the analysis would also have to consider adverse modification to critical habitat.

The outcome would be different in the pollinator buffer because without critical habitat, we would not require formal consultation or conservation measures in these areas. Therefore, there would be an increase in the number of consultations within the pollinator buffer. Furthermore, the recommended conservation efforts in the pollinator buffer would be specific to the maintenance of pollinators and would be additional to what would be recommended as necessary to avoid jeopardizing the continued existence of Graham's and White River beardtongues.

Designating critical habitat does not, by itself, lead to the recovery of a listed species. The designation does not establish a reserve, create a management plan, establish numerical population goals, prescribe specific management practices (inside or outside of critical habitat), or directly affect areas not designated as critical habitat. Specific management recommendations for areas designated as critical habitat are most appropriately addressed in recovery and management plans, and through section 7 consultation. However, benefits to Graham's and White River beardtongues that may accrue from the designation of critical habitat, under Alternative B, would relate to the requirement under section 7 of the ESA that Federal agencies review their actions to assess their effects on critical habitat. Another potential benefit is that critical habitat designation may help to focus Federal, State, and private conservation and management efforts by identifying the areas of most importance to a species. Critical habitat also allows for long-term project planning for species conservation.

Other potential benefits of critical habitat designation to the species include educational benefits (increasing the knowledge that a species exists or is in an area), improvements to air or water quality as a result of species' protections, and conservation of native habitats. Some of these benefits can be attributed to the listing of Graham's and White River beardtongues and some would be attributable to the critical habitat designation. The draft economic analysis does not attempt to quantify the economic benefits associated with the proposed critical habitat designation, but it does recognize there is an economic value for these services (Industrial Economics, Inc., 2014). These benefits are especially true for those unoccupied areas where protections for the species, through occupied habitat protections, would not apply.

Maintenance or restoration of natural landscape patterns is of particular importance in those areas where proposed critical habitat may overlap with Uinta basin hookless cactus (*Sclerocactus wetlandicus*), Clay reed-mustard (*Schoenocrambe argillacea*), and Shrubby reed-mustard (*Schoenocrambe suffrutescens*) occurrences. Management of a critical habitat unit solely for Graham's beardtongue will not deleteriously affect Uinta basin hookless cactus, Clay reed-mustard, and Shrubby reed-mustard, and could lead to a net benefit to these species because of the preservation of intact habitat.

Fish, wildlife, and plants may indirectly benefit as a result of ecosystem protections provided through conservation of Graham's and White River beardtongues and the associated

requirements of section 7 of the ESA. As a result of critical habitat designation, Federal agencies may be able to prioritize conservation programs that benefit Graham's and White River beardtongues, as well as other fish, wildlife, and plant species. Critical habitat designation also may assist States in prioritizing their conservation and land-management programs. Because Alternative B will generally provide further protection of the habitat at large, this alternative will largely be a benefit to the species where overlap occurs. Migratory songbirds, various big game species, amphibians, and reptiles also use habitat within the Proposed Action area. For these species, there may again be a benefit from the critical habitat designation because of the corresponding native habitat protections. There may be instances where conservation of one resource may conflict with the conservation of the two beardtongue species. For example, treatments to encourage big game may threaten a rare plant site.

5.3 Human Environment

As discussed above, individuals, organizations, States, local governments, and other non-Federal entities are only affected by the designation of critical habitat if their actions occur on Federal lands, require a Federal permit, license, or authorization, or involve Federal funding. There are no State or local laws in Utah or Colorado that apply to plants or their critical habitat.

During the time period they were candidates for listing, the BLM (the only Federal agency managing Graham's and White River beardtongues habitat) considered the effects of their actions to both beardtongues and consulted informally with the Service. As discussed in section 5.2 Fish, Wildlife, and Plants, above, in the consultation buffer, a similar consultation process is required for critical habitat and we expect these consultations would be done concurrently with little additional effort. In the pollinator buffer of critical habitat, there will be an increase in the number of consultations and the recommended conservation efforts would be specific to the maintenance of pollinators and would be additional to what would be recommended as necessary to avoid jeopardizing the continued existence of the species. We realize that some past or ongoing BLM actions may not have been consulted on under section 7 for Graham's and White River beardtongues. Thus, in the future, the BLM may identify the need to do so in areas designated as critical habitat, resulting in a small increase in consultations.

A perception may exist within some segments of the public that any designation of critical habitat will severely limit property rights; however, critical habitat designation has no effect on private actions on private land that do not involve Federal approval or action. We recognize that there are private actions on private or state lands that involve a Federal nexus, and agencies will be required to consult with us for these actions under section 7 of the ESA.

Differentiating between consultations that result from the listing of Graham's and White River beardtongues and consultations that result from the presence of critical habitat is difficult. However, the following discussion will address how much of the cost associated with all future section 7 consultation in or near the proposed critical habitat unit is likely attributable to critical habitat designation, as provided in the draft economic analysis (Industrial Economics, Inc., 2014).

Potential effects to the human environment from designating critical habitat were analyzed by activity type and include conservation activity related costs on an annual basis. In general, effects to the human environment are likely to be small. The total quantifiable section 7 cost associated with the proposed critical habitat designation for energy development (traditional oil and gas, oil shale, and tar sands) and grazing activities is estimated to be \$2,900,000 (2013 dollars) in a single year (Industrial Economics, Inc., 2014). The incremental cost associated with grazing activities is a relatively minor component of the total cost (\$9,000); the major component of the total cost is associated with energy development activities. The following sections provide additional information on activities affecting the Human Environment including Traditional Oil and Gas Development, Oil Shale and Tar Sands Development, and Grazing.

5.3.1 Traditional Oil and Gas Development

Alternative A - Under the No Action Alternative, there would be no designation of critical habitat under the ESA and no impact on traditional oil and gas development practices beyond those already resulting from a listing decision of the two beardtongue species and the associated requirements of section 7 of the ESA because no additional consultation for critical habitat would be necessary.

Alternative B - Under the Proposed Action, there is the potential for a significant number of traditional oil and gas development activities within critical habitat. Traditional oil and gas development includes: oil and gas extraction, transmission line construction and maintenance, pipeline construction and maintenance, associated infrastructure and well pad reclamation. In our proposed rule, we identified traditional oil and gas development activities as a threat to both beardtongue species. The soil conditions needed by the species are easily disturbed because the soil surface structure is fragile. Surface mining operations and placement of the resultant overburden can lead to plant and habitat loss. Blading of the top few inches of soil during well pad and road construction, pipeline installation, and construction of associated facilities changes the soil structure, thereby impacting the species. In addition, the operation of wells could potentially impact the species through dust generation, loss of pollinator habitat, spills of produced water or other drilling wastes, and unintentional trampling by employees and contractors. Habitat loss or fragmentation from traditional oil and gas development can result in higher extinction probabilities for plants because remaining plant populations are confined to smaller patches of habitat that are isolated from neighboring populations. The resulting roads and infrastructure can fragment habitat, restrict pollinator movement, and provide a corridor for nonnative species invasion into the habitat. Road traffic on unpaved access roads during both construction and operation of wells and facilities increases dust emissions, which can affect plant photosynthesis, affect gas and water exchange, clog plant pores, and increase leaf temperature, leading to decreased plant vigor and growth.

Graham's and White River beardtongues effects analysis and associated protective measures would be addressed through the section 7 process regardless of whether critical habitat is designated in most cases. Thus, the section 7 process for a listed plant would include evaluation of effects to a plant as well as protective measures in any occupied habitat. An additional

consultation and protective measure expense would be incurred if oil and gas development projects occur within the pollinator buffer area of designated critical habitat or other areas of critical habitat not occupied by the species at the time of consultation. When the additional consultation and protective measure expense was combined with baseline consultation costs, the total annual cost from the designation of critical habitat associated with traditional oil and gas development was estimated to be \$2.7 million (2013 dollars) (Industrial Economics, Inc., 2014).

5.3.2 Oil Shale and Tar Sands Development

Alternative A - Under the No Action Alternative, there would be no designation of critical habitat under the ESA and no impact on oil shale and tar sands development practices beyond those already resulting from a listing decision of the two beardtongue species and the associated requirements of section 7 of the ESA because no additional consultation for critical habitat would be necessary.

Alternative B - Under the Proposed Action, there is the potential for oil shale and tar sands development to occur within critical habitat. Oil shale and tar sands development includes: oil shale mining, tar sands mining, transmission line construction and maintenance, pipeline construction and maintenance, mine reclamation, and associated infrastructure. In the proposed rule, we identified oil shale and tar sands development activities as a threat to both beardtongue species. The soil conditions needed by the species are easily disturbed because the soil surface structure is fragile. Surface mining operations and placement of the resultant overburden can lead to plant and habitat loss. Blading of soil during road construction, pipeline installation, and construction of associated facilities changes the soil structure, thereby impacting the species. Removal of the soil and deposition of the overburden material changes the soil structure, thereby threatening the species. In addition, the operation of the mines could potentially impact the species through dust generation, loss of pollinator habitat, spills of produced water or other drilling wastes, and unintentional trampling by employees and contractors. Habitat loss or fragmentation from oil shale and tar sands development can result in higher extinction probabilities for plants because remaining plant populations are confined to smaller patches of habitat that are isolated from neighboring populations. The resulting roads and infrastructure can fragment habitat, restrict pollinator movement, and provide a corridor for nonnative species invasion into the habitat. Road traffic on unpaved access roads during both construction and operation of wells and facilities increases dust emissions, which can affect plant photosynthesis, affect gas and water exchange, clog plant pores, and increase leaf temperature, leading to decreased plant vigor and growth.

Graham's and White River beardtongues effects analysis and associated protective measures for the plants would be addressed through the section 7 process regardless of whether critical habitat is designated in most cases. Thus, the section 7 process for a listed plant includes evaluation of effects to a plant as well as protective measures for all occupied habitat. An additional consultation and protective measure expense would be incurred if oil shale and tar sands development projects occur within the pollinator buffer area of designated critical habitat or other areas of critical habitat not occupied by the species at the time of consultation. Currently, there is no commercial production of either oil shale or tar sands energy development in the

Uintah Basin. Therefore, a case study was performed on one planned project that overlaps with the proposed designation. When the additional consultation and protective measure expense was combined with baseline consultation costs, the total annual cost from the designation of critical habitat associated with oil shale and tar sands was estimated to be \$130,000 (2013 dollars) (Industrial Economics, Inc., 2014).

5.3.3 Grazing

Alternative A - Under the No Action Alternative, there would be no designation of critical habitat under the ESA and no impact on grazing practices beyond those already resulting from a listing decision of the two beardtongue species and the associated requirements of section 7 of the ESA because no additional consultation for critical habitat would be necessary.

Alternative B - Grazing occurs on Federal lands managed by the BLM Vernal and White River Field Offices and is generally permitted by the BLM across both species' ranges. In the proposed rule, we did not consider grazing to be a threat to either species when considered singly; however, we concluded that the cumulative effects of livestock grazing; particularly habitat alteration coupled with other disturbances was a threat to both beardtongue species (78 FR 47590).

For grazing activities, the recommended conservation measures would be the same regardless of critical habitat designation. Therefore, the incremental cost of critical habitat is expected to be relatively minor comprising administrative costs of considering critical habitat as part of the consultation. The total annual cost was estimated to be \$9,000 (2013 dollars) for all grazing allotment consultations (Industrial Economics, Inc., 2014).

5.3.4 Archeological and Cultural Resources

Alternative A - Under the No Action Alternative, there would be no designation of critical habitat under the ESA and no impact on archaeological and cultural resources beyond those already resulting from a listing decision of the two beardtongue species and the associated requirements of section 7 of the ESA because no additional consultation for critical habitat would be necessary.

Alternative B - Under the Proposed Action, impacts to archeological and cultural resources would be similar to alternative A. Designation of critical habitat is expected to have no direct negative impacts on these resources because it is an administrative action on paper that does not directly impact these resources on the ground. As a result of critical habitat designation, increased protection of some sites with archeological and cultural resources within critical habitat may indirectly occur if a Federal action is proposed and protective measures are applied to conserve critical habitat for the beardtongues.

5.3.5 Environmental Justice

Executive Order 12898, Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations, 59 FR 7629 (1994), directs Federal agencies to incorporate environmental justice in their decision making process. Federal agencies are directed to identify and address as appropriate, any disproportionately high and adverse environmental effects of their programs, policies, and activities on minority or low-income populations. There are no identified adverse or beneficial effects unique to minority or low-income populations in areas included in alternative A or alternative B.

5.3.6 Cumulative Impacts

Designation of critical habitat for the two beardtongue species will add minimal incremental impacts when added to other past, present, and reasonably foreseeable future actions.

We expect the cumulative impacts to be relatively small. In the consultation buffer, the number of consultations would not increase because federally supported actions would already require section 7 consultation for the species under the jeopardy standard, regardless of whether or not we designate critical habitat. The outcomes of section 7 consultations are unlikely to be materially different whether or not critical habitat is designated because actions that would detrimentally affect PCEs would also impact reproduction, growth, and survival of the two beardtongue species. Where a section 7 consultation occurs within the pollinator buffer of critical habitat units or other areas of critical habitat not occupied by the species at the time of consultation, additional consultations will be necessary and additional conservation measures will be recommended. In addition to the two beardtongue species, Uinta basin hookless cactus (*Sclerocactus wetlandicus*), Clay reed-mustard (*Schoenocrambe argillacea*), and Shrubby reed-mustard (*Schoenocrambe suffrutescens*) occur in the Graham's beardtongue Sand Wash proposed critical habitat unit (see Table 1). We expect these three plant species will benefit from a proposed critical habitat designation by increased protection of their native habitat. Therefore, the impacts to Graham's and White River beardtongues are not additive.

As discussed previously, Federal agencies are required to ensure that any action they authorize, fund, or carry out is not likely to jeopardize the continued existence of the listed species, or destroy or adversely modify designated critical habitat in accordance with section 7(a)(2) of the ESA. For activities that may result in "destruction or adverse modification" of critical habitat, we currently assess these effects based under guidance provided in 2004 (Service 2004). This guidance has us assess cumulative effects based on effects of future, non-Federal actions that are reasonably certain to occur in terms of the primary constituent elements or habitat qualities essential to the conservation of the species (Service 2004). Activities that jeopardize a species are defined as those actions that "reasonably would be expected, directly or indirectly, to reduce appreciably the likelihood of both the survival and recovery" of the listed species (50 CFR 402.02). According to these definitions, activities that destroy or adversely modify critical habitat would generally jeopardize the species. Therefore, designation of critical habitat has rarely resulted in greater protection than that afforded under section 7 by the listing of a species,

except in the unoccupied critical habitat units. Section 7 consultations apply only to actions with Federal involvement (i.e., activities authorized, funded, or conducted by Federal agencies), and do not impact activities strictly under State or private authority. In practice, the designation of critical habitat for the Graham's and White River beardtongues will likely provide little additional benefits to the species in presently occupied areas because there are functioning program activities already alerting Federal agencies and the public of endangered species concerns.

Section 4(b)(2) of the ESA requires us to designate critical habitat on the basis of the best scientific and commercial information available and to consider the economic and other relevant impacts of designating a particular area as critical habitat. We may exclude areas from critical habitat upon a determination that the benefits of such exclusions outweigh the benefits of specifying such areas as part of critical habitat. We cannot exclude such areas from critical habitat if such exclusion would result in the extinction of the species concerned. We are currently conducting an analysis of the economic and other relevant impacts of Alternative B, the Proposed Action. The Draft EA is available for public review and comment, and we have announced its availability in the Federal Register. We will consider the results of that analysis, and modifications based on public comments received, in preparing the final EA of proposed critical habitat designation.

We have included a summary of environmental consequences by alternative (Table 4.). Economic benefits are not quantified in the draft economic analysis and so are not included in the key findings below.

Table 4. Summary of Environmental Consequences by Alternative

Impacts	Alternative A: No Action	Alternative B: Proposed Action
Fish, Wildlife, and Plants, including Graham's beardtongue and White River beardtongue	No change to existing situation.	May be beneficial impacts beyond those associated with the listing of Graham's beardtongue and White River beardtongue as threatened. Designation of critical habitat can help focus conservation activities for listed species.
Energy Development: Traditional Oil and Gas	No change to existing situation.	The annual cost from the proposed designation of critical habitat associated with these activities is predicted to be approximately \$2.7 million per year.
Energy Development: Oil Shale and Tar Sands	No change to existing situation.	The annual cost from the proposed designation of critical habitat associated with these activities is predicted to be approximately \$130,000 per year.
Grazing	No change to existing situation.	The annual cost from the proposed designation of critical habitat associated with these activities is predicted to be \$9,000 per year.
Archaeological and Cultural	No change to existing situation.	Additional protection may occur at some sites located within the critical habitat designation.
Environmental Justice	No change to existing situation.	No impacts.
Cumulative Impacts	No change to existing situation.	Minimal change.

6.0 Council on Environmental Quality Analysis of Significance

Under CEQ 40 CFR Part 1508.27, the determination of “significantly” requires consideration of both context and intensity.

6.1 Context

Impacts of the action, although long-term, will not be national, only regional and mostly local in context; and any that occur are expected to be small.

6.2 Intensity

Intensity is defined by CEQ as referring to the severity of impact. The following 10 points identified by CEQ were considered in evaluating intensity:

1. We foresee minimal additional negative impacts beyond what we already consider through section 7 consultation since the species designation as a candidate species. There may be perceived negative impacts but we are carrying out a public outreach program, which should address and minimize most of those misconceptions. There may be some beneficial impacts to the environment.
2. This designation will not have a discernible impact on human safety.
3. Although several areas designated as critical habitat are in proximity to parklands, rangeland, wetlands, and ecologically critical areas, it is unlikely that adverse impacts will occur to these areas.
4. There is a perception by some segments of the public that critical habitat designation will severely limit property rights; however, critical habitat designation has no effect on private actions on private land that do not involve Federal approval or action.
5. The Service has designated critical habitat for other species in the recent past and we are familiar with the associated effects. Therefore, we anticipate minimal effects to the human environment and we are certain this action does not involve any unique or unknown risks.
6. This designation of critical habitat is not expected to set any precedents for future actions with significant effects or represent a decision in principle about a future consideration because critical habitat has been designated before for other species, as required by law.
7. This designation of critical habitat will be additive (cumulative) to critical habitat that has been, and will be, designated for other species. However, it is the Service's conclusion that the adverse impacts of any and all critical habitat designations are small, and, therefore, insignificant due to the existing impacts, both beneficial and adverse, already resulting from the listing of the species involved.
8. This designation will have minimal adverse effects to National Register of Historic Places or other cultural sites.
9. Most impacts from this designation of critical habitat will be beneficial to endangered and threatened species, particularly the Graham's and White River beardtongues. Designation of critical habitat can help focus conservation activities for listed species by identifying areas essential to conserve the species. Designation of critical habitat also alerts the public, as well as land-managing agencies, to the importance of these areas.
10. This designation of critical habitat will not violate any Federal, State, or local laws or requirements imposed for the protection of the environment.

7.0 Contacts and Coordination with Others

This proposed designation of critical habitat has been coordinated with the State of Utah, the State of Colorado, Federal agencies, the Ute Indian Tribe of the Uintah and Ouray Reservation, Uintah County, Utah, Rio Blanco County, Colorado, and other interested parties through letters, emails, telephone calls, and our web site. The U.S. Bureau of Land Management contacts include the Utah State Office, the Vernal Field Office in Utah, and the White River Field Office in Colorado. Additional contacts include personnel from the Utah Governor’s Office Public Lands Policy Coordination Office, the School and Institutional Trust Lands Administration of Utah, the Colorado Natural Areas Program, the Colorado oil and Gas Conservation Commission, and the Uintah County Attorney’s Office.

7.1 List of Agencies, Organizations, and Persons to Whom Copies of This Draft EA Were Sent or Contacted

The following is a list of individuals, organizations, and public agencies contacted concerning development of this Environmental Assessment and the proposed rule to designate critical habitat for the Graham’s and White River beardtongues. Each of these also will be notified of the publication of the final rule:

Federal Agencies

Department of the Interior

 Bureau of Land Management

 Utah State Office

 Vernal Field Office, Utah

 White River Field Office, Colorado

 U.S. Fish and Wildlife Service

 Region 6 Office, Denver, Colorado

Tribes

The Ute Indian Tribe of the Uintah and Ouray Reservation

State Agencies

 Utah Office of the Governor

 Public Lands Policy Coordination Office

 Utah Department of Environment and Natural Resources

 School and Institutional Trust Lands Administration

 Colorado Department of Natural Resources

 Colorado Natural Areas Program

Colorado Oil and Gas Conservation Commission

Colorado County Commissioners

Rio Blanco County

Utah County Commissioners

Uintah County
Duchesne County
Carbon County

8.0 List of Contributors

The principal authors on this document are staff of the Utah Field Office, U.S. Fish and Wildlife Service, and staff from the Mountain-Prairie Regional Office, U.S. Fish and Wildlife Service.

9.0 Literature Cited

A complete list of all references we cited in the proposed rule and in this document is available by contacting Larry Crist, Field Supervisor, U.S. Fish and Wildlife Service, Utah Field Office, Ecological Services Field Office, 2369 West Orton Circle, Suite 50, West Valley City, Utah 84119; telephone 801-975-3330; or facsimile 801-975-3331.

10.0 Maps

Units and maps correspond to proposed critical habitat units as depicted in the Federal Register August 6, 2013 (78 FR 47832).

10.1 Map of Alternative B: Proposed Action - Graham's beardtongue

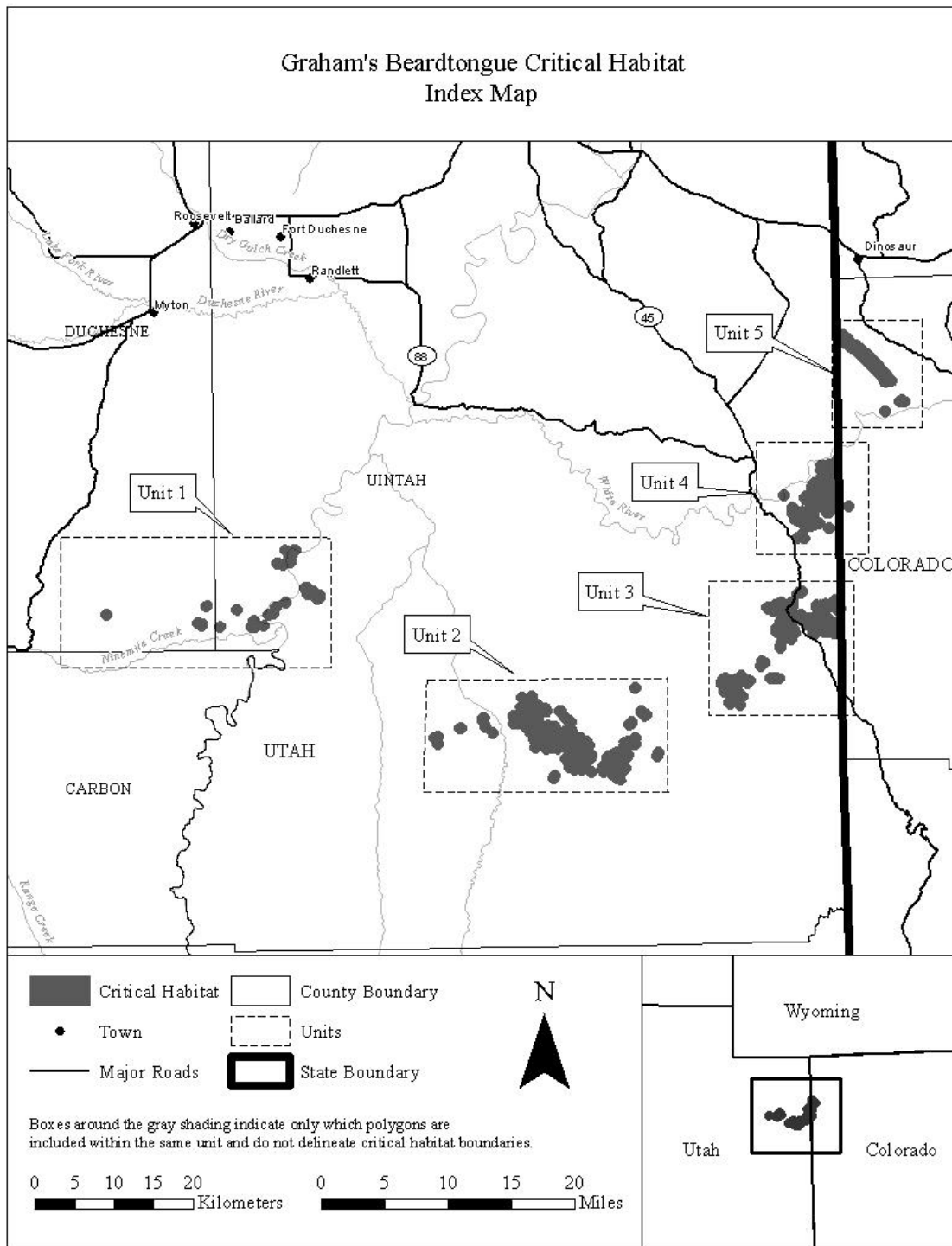


Figure 1. Proposed critical habitat for Graham's beardtongue (*Penstemon grahamii*).

10.2 Map of Alternative B: Proposed Action - White River beardtongue

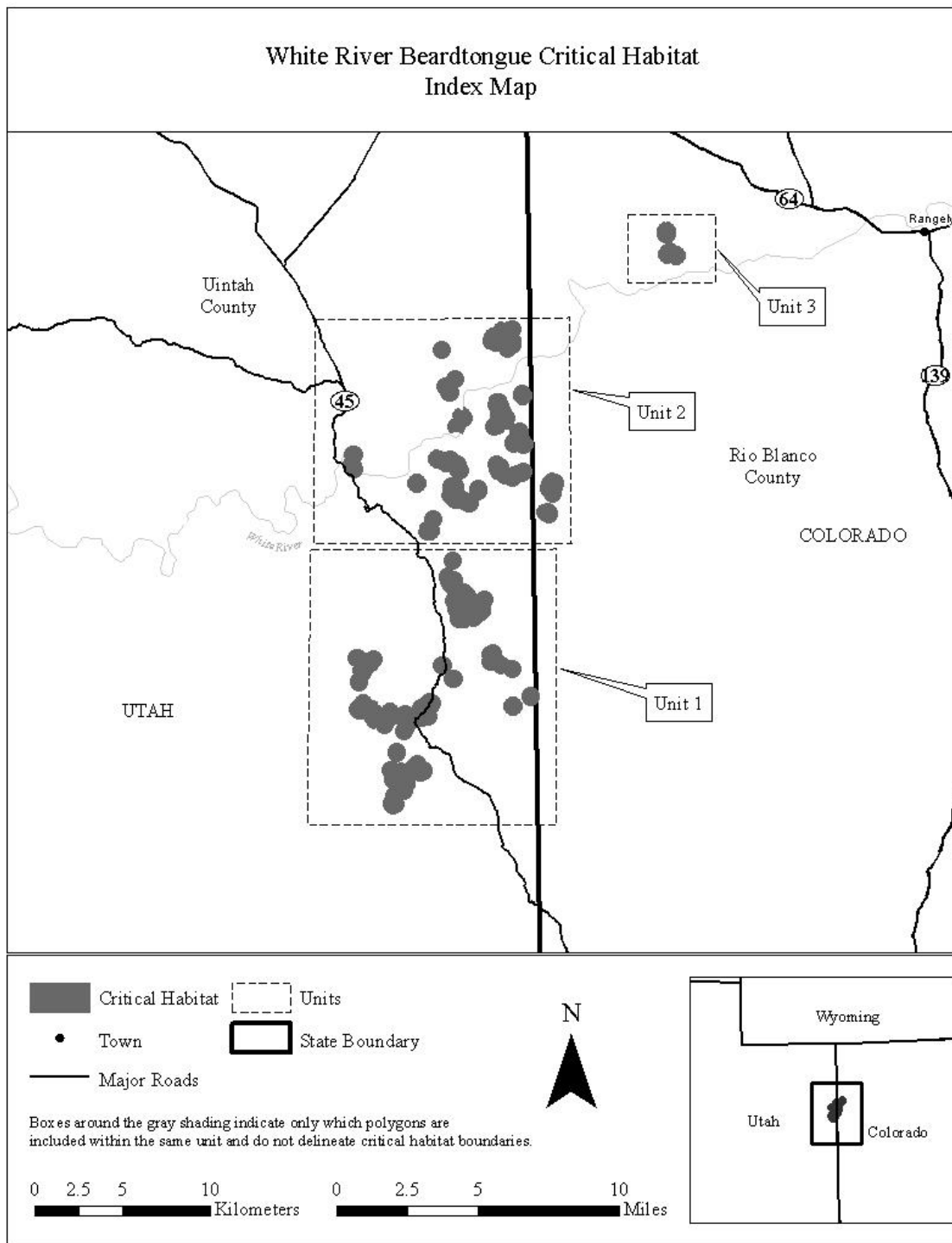


Figure 2. Proposed critical habitat for White River beardtongue.

10.3 Map of Alternative A: No Action – Graham’s beardtongue

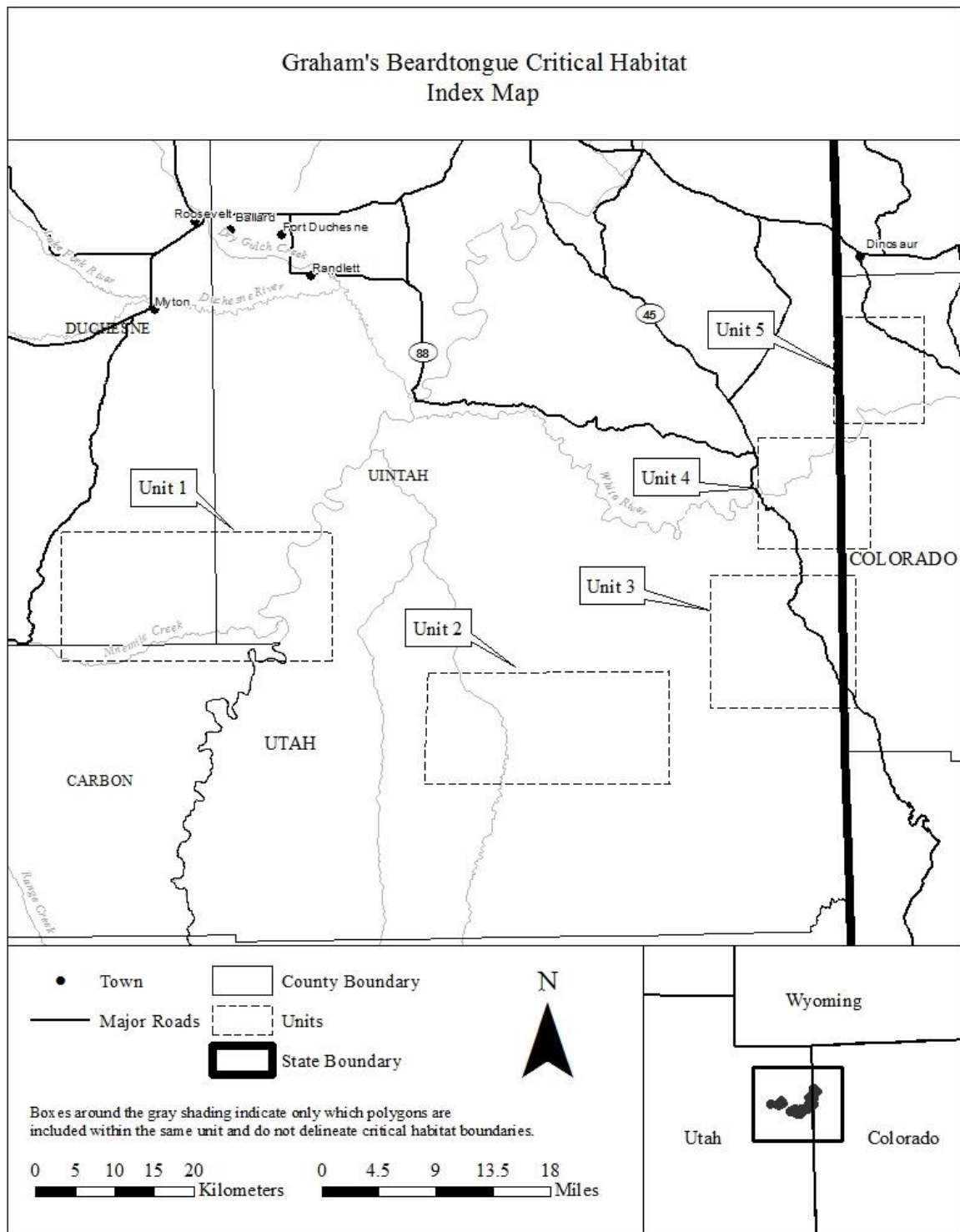


Figure 3. Graham’s beardtongue areas without a proposed critical habitat designation.

10.4 Map of Alternative A: No Action – White River beardtongue

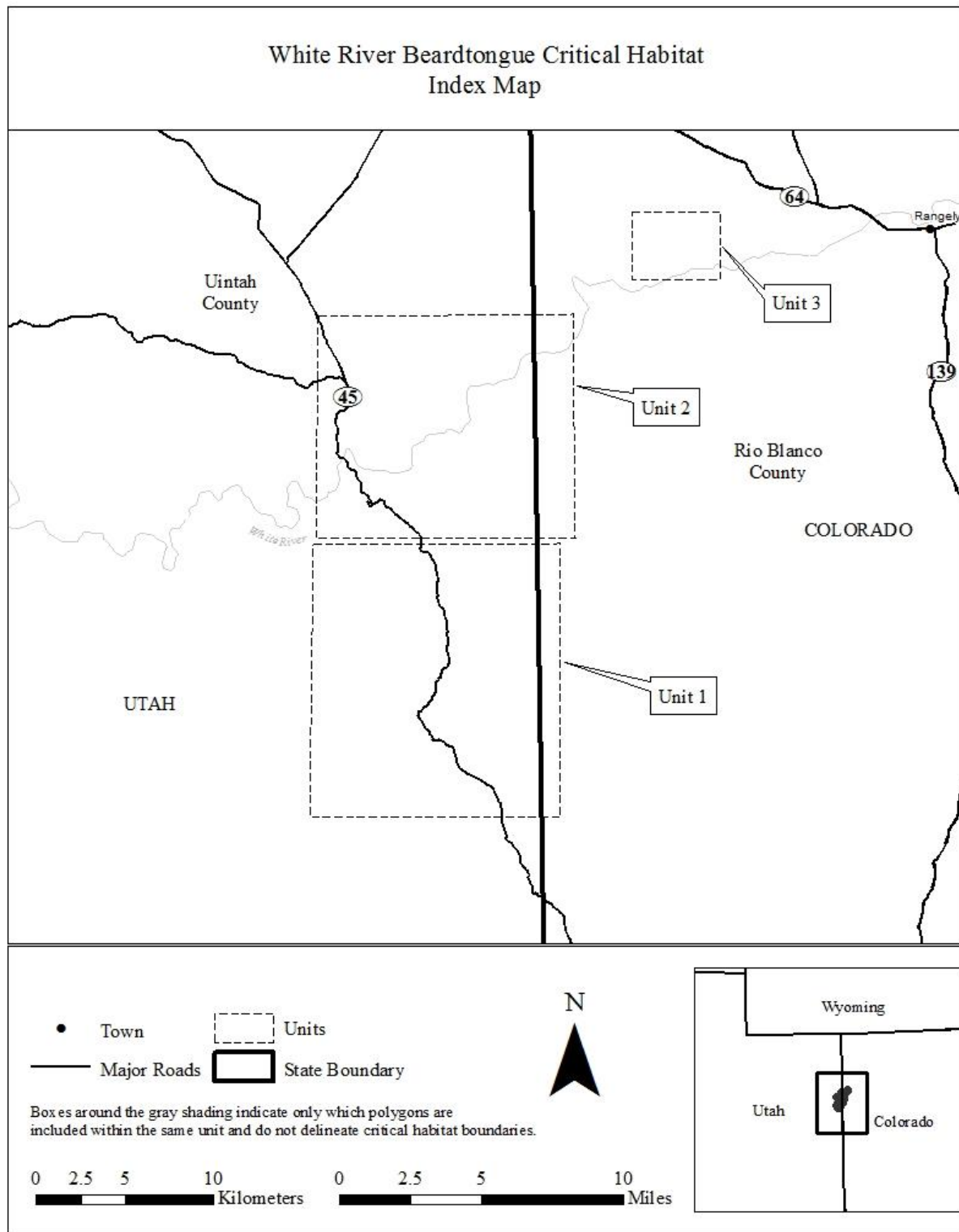


Figure 4. White River beardtongue areas without a proposed critical habitat designation.